APPEAL BRIEF

TABLE OF CONTENTS

PAGE

G:\NEC\1072\15006\AMEND\15006.brief1.doc

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant: Masahiro Hashimoto   Examiner: David Yiuk Jung

Serial No.: 09/982,579   Art Unit: 2134

Filed: October 18, 2001   Docket: 15006

For: ELECTRONIC WATERMARK   Dated: August 6, 2007
             DETECTION DEVICE AND ELECTRONIC
             WATERMARK DETECTION METHOD

Conf. No.: 7602

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

APPEAL BRIEF

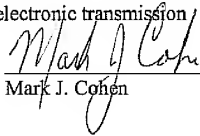I. Statement of Real Party in Interest

     The real party in interest of the present application is NEC Corporation, the assignee of

the entire right, title and interest in the above-identified patent application.

CERTIFICATE OF ELECTRONIC TRANSMISSION

     I hereby certify that this correspondence is being filed in the United States Patent
and Trademark Office on the date shown below via electronic transmission.

Dated: August 6, 2007

                                       Mark J. Cohen

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II. Statement of Related Appeals and Interferences

No other appeals and interferences are known which directly affect, or will be directly affected by, or have a bearing on, the disposition of the pending appeal.

III. Statement of Status of Claims

Claim 1 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 2 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 3 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 4 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 5 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 6 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

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Claim 7 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 8 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 9 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 10 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 11 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 12 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 13 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

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Claim 14 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 15 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 16 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 17 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 18 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 19 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 20 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

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Claim 21 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 22 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 23 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 24 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 25 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 26 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 27 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 28 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 29 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

Claim 30 stands rejected based on 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

IV. Statement of Status of Amendments

No amendments were made subsequent to the final rejection.

V. Summary of Claimed Subject Matter

The invention with respect to claim 1 comprises an electronic watermark detection device having an electronic watermark detection means for detecting an electronic watermark inserted into an image signal and indicative of at least copyright information (e.g., See: FIG. 1, ref. 2; page 12, lines 7 – 21), comprising: detection result adjustment means for adjusting a detection interval of said electronic watermark based on a detection result of said electronic watermark detection means (e.g., See: FIG. 1, ref. 4; page 12, line 15 – page 13, line 5; FIG. 4; page 15, line 16 – page 17, line 2).

The invention with respect to claim 2 comprises the elements identified with respect to claim 1 above, and further, wherein said electronic watermark detection means generates a detection result of said electronic watermark and a detection interruption for notifying the result, and said detection result adjustment means accumulates the detection results of said electronic

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watermark based on said detection result and said detection interruption from said electronic watermark detection means and adjusts said electronic watermark detection interval based on the accumulation result (e.g., See: page 12, lines 15 – 27; page 15, line 16 – page 17, line 2).

The invention with respect to claim 3 comprises the elements identified with respect to claim 2 above, and further, wherein said detection result adjustment means adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection means to output the adjusted timing as an adjusted detection interruption (e.g., See: page 15, line 16 – page 17, line 2).

The invention with respect to claim 4 comprises the elements identified with respect to claim 2 above, and further, wherein said detection result adjustment means adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection means and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection interruption (e.g., See: FIG. 10 and 11; page 36, line 11 – page 41, line 11).

The invention with respect to claim 5 comprises the elements identified with respect to claim 1 above, and further, wherein said detection result adjustment means increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected (e.g., See: page 4, lines 9 – 13).

The invention with respect to claim 6 comprises the elements identified with respect to claim 1 above, and further, wherein said electronic watermark detection means generates a detection result of said electronic watermark and a detection interruption for notifying the result, and said detection result adjustment means accumulates the detection results of said electronic watermark based on said detection result and said detection interruption from said electronic

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watermark detection means and adjusts said electronic watermark detection interval based on the accumulation result, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected (e.g., See: page 4, lines 14 – 26).

The invention with respect to claim 7 comprises the elements identified with respect to claim 2 above, and further, wherein said detection result adjustment means adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection means to output the adjusted timing as an adjusted detection interruption, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected (e.g., See: page 5, lines 1 – 8).

The invention with respect to claim 8 comprises the elements identified with respect to claim 2 above, and further, wherein said detection result adjustment means adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection means and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection interruption, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected (e.g., See: page 5, lines 9 – 19).

The invention with respect to claim 9 comprises the elements identified with respect to claim 1 above, and further, wherein said image signal is a digital image including at least an image of the MEPG (Moving Picture Experts Group) standard (e.g., See: page 5, lines 20 – 22).

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The invention with respect to claim 10 comprises the elements identified with respect to claim 1 above, and further, wherein said image signal is a picture signal of at least a space region (e.g., See: page 5, lines 23 – 24).

The invention with respect to claim 11 comprises an electronic watermark detection method of an electronic watermark detection device for detecting an electronic watermark inserted into an image signal and indicative of at least copyright information (e.g., See: FIG. 1, ref. 2; page 12, lines 7 – 21), comprising the steps of: detecting said electronic watermark, and adjusting a detection interval of said electronic watermark based on a detection result of said electronic watermark (e.g., See: FIG. 1, ref. 4; page 12, line 15 – page 13, line 5; FIG. 4; page 15, line 16 – page 17, line 2).

The invention with respect to claim 12 comprises the elements identified with respect to claim 11 above, and further, wherein at said electronic watermark detection step, a detection result of said electronic watermark and a detection interruption for notifying the result are generated, and at said detection result adjustment step, the detection results of said electronic watermark are accumulated based on said detection result and said detection interruption from said electronic watermark detection step and said electronic watermark detection interval is adjusted based on the accumulation result (e.g., See: page 12, lines 15 – 27; page 15, line 16 – page 17, line 2).

The invention with respect to claim 13 comprises the elements identified with respect to claim 12 above, and further, wherein at said detection result adjustment step, output timing of said detection interruption is adjusted based on said detection result and said detection interruption from said electronic watermark detection step to output the adjusted timing as an adjusted detection interruption (e.g., See: page 15, line 16 – page 17, line 2).

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The invention with respect to claim 14 comprises the elements identified with respect to claim 12 above, and further, wherein at said detection result adjustment step, output timing of said detection interruption is adjusted based on said detection result and said detection interruption from said electronic watermark detection step and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection interruption (e.g., See: FIG. 10 and 11; page 36, line 11 – page 41, line 11).

The invention with respect to claim 15 comprises the elements identified with respect to claim 11 above, and further, wherein at said detection result adjustment step, said detection interval is increased when said electronic watermark is detected and said detection interval is decreased when none of said electronic watermark is detected (e.g., See: page 7, lines 5 – 9).

The invention with respect to claim 16 comprises the elements identified with respect to claim 11 above, and further, wherein at said electronic watermark detection step, a detection result of said electronic watermark and a detection interruption for notifying the result are generated, and at said detection result adjustment step, the detection results of said electronic watermark are accumulated based on said detection result and said detection interruption from said electronic watermark detection step and said electronic watermark detection interval is adjusted based on the accumulation result, and said detection interval is increased when said electronic watermark is detected and said detection interval is decreased when none of said electronic watermark is detected (e.g., See: page 7, lines 10 – 24).

The invention with respect to claim 17 comprises the elements identified with respect to claim 12 above, and further, wherein at said detection result adjustment step, output timing of said detection interruption is adjusted based on said detection result and said detection interruption from said electronic watermark detection step to output the adjusted timing as an

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adjusted detection interruption, and said detection interval is increased when said electronic watermark is detected and said detection interval is decreased when none of said electronic watermark is detected (e.g., See: page 7, line 25 – page 8, line 8).

The invention with respect to claim 18 comprises the elements identified with respect to claim 12 above, and further, wherein at said detection result adjustment step, output timing of said detection interruption is adjusted based on said detection result and said detection interruption from said electronic watermark detection step and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection interruption, and said detection interval is increased when said electronic watermark is detected and said detection interval is decreased when none of said electronic watermark is detected (e.g., See: page 8, lines 9 – 21).

The invention with respect to claim 19 comprises the elements identified with respect to claim 11 above, and further, wherein said image signal is a digital image including at least an image of the MEPG (Moving Picture Experts Group) standard (e.g., See: page 5, lines 20 – 22).

The invention with respect to claim 20 comprises the elements identified with respect to claim 11 above, and further, wherein said image signal is a picture signal of at least a space region (e.g., See: page 5, lines 23 – 24).

The invention with respect to claim 21 comprises an electronic watermark detection device having an electronic watermark detection unit which detects an electronic watermark inserted into an image signal and indicative of at least copyright information (e.g., See: FIG. 1, ref. 2; page 12, lines 7 – 21), comprising: detection result adjustment unit which adjusts detection interval of said electronic watermark based on a detection result of said electronic watermark

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detection unit (e.g., See: FIG. 1, ref. 4; page 12, line 15 – page 13, line 5; FIG. 4; page 15, line 16 – page 17, line 2).

The invention with respect to claim 22 comprises the elements identified with respect to claim 21 above, and further, wherein said electronic watermark detection unit generates a detection result of said electronic watermark and a detection interruption for notifying the result, and said detection result adjustment unit accumulates the detection results of said electronic watermark based on said detection result and said detection interruption from said electronic watermark detection unit and adjusts said electronic watermark detection interval based on the accumulation result (e.g., See: page 12, lines 15 – 27; page 15, line 16 – page 17, line 2).

The invention with respect to claim 23 comprises the elements identified with respect to claim 22 above, and further, wherein said detection result adjustment unit adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection unit to output the adjusted timing as an adjusted detection interruption (e.g., See: page 15, line 16 – page 17, line 2).

The invention with respect to claim 24 comprises the elements identified with respect to claim 22 above, and further, wherein said detection result adjustment unit adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection unit and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection interruption (e.g., See: FIG. 10 and 11; page 36, line 11 – page 41, line 11).

The invention with respect to claim 25 comprises the elements identified with respect to claim 21 above, and further, wherein said detection result adjustment unit increases said

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detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected (e.g., See: page 4, lines 9 – 13).

The invention with respect to claim 26 comprises the elements identified with respect to claim 21 above, and further, wherein said electronic watermark detection unit generates a detection result of said electronic watermark and a detection interruption for notifying the result, and said detection result adjustment unit accumulates the detection results of said electronic watermark based on said detection result and said detection interruption from said electronic watermark detection unit and adjusts said electronic watermark detection interval based on the accumulation result, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected (e.g., See: page 4, lines 14 – 26).

The invention with respect to claim 27 comprises the elements identified with respect to claim 22 above, and further, wherein said detection result adjustment unit adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection unit to output the adjusted timing as an adjusted detection interruption, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected (e.g., See: page 5, lines 1 – 8).

The invention with respect to claim 28 comprises the elements identified with respect to claim 22 above, and further, wherein said detection result adjustment unit adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection unit and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection

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interruption, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected (e.g., See: page 5, lines 9 – 19).

The invention with respect to claim 29 comprises the elements identified with respect to claim 21 above, and further, wherein said image signal is a digital image including at least an image of the MEPG (Moving Picture Experts Group) standard (e.g., See: page 5, lines 20 – 22).

The invention with respect to claim 30 comprises the elements identified with respect to claim 21 above, and further, wherein said image signal is a picture signal of at least a space region (e.g., See: page 5, lines 23 – 24).

VI. Statement of Grounds of Rejection to be Reviewed on Appeal

1. Rejection under 35 U.S.C. §103(a) over Japanese Application No. 11-077540 issued to Shimizu et al. in view of Japanese Application No. 07-267765 issued to Kato and further in view of Japanese Application No. 09-178119 issued to Takahashi.

VII. Statement of Argument

A. Claims 1 – 30

This obviousness rejection relies on the combined disclosures of Shimizu et al., Kato and Takahashi, in combination, for allegedly disclosing the semiconductor device recited in Claims 1 – 30 on appeal. Appellant respectfully submits that Claims 1 – 30 on appeal are not obvious from the above combination of references since neither of the references, individually or in combination, teaches or suggests Appellant's claimed electronic watermark detection device and method as recited in Claims 1 – 30.

Regarding Shimizu, an apparatus and method are disclosed for detecting watermarks embedded in motion picture data based on a statistical observation value for each motion picture

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frame. Specifically, the Shimizu reference discloses accumulating observation values from each frame and comparing those accumulated values against variable threshold values. The watermarked information is detected based on the comparison results.

However, Appellant's present invention recited in the claims teaches an electronic watermark detection device having an electronic watermark detection means 2 for detecting an electronic watermark inserted into an image signal and indicative of at least copyright information. The claimed detection device has a detection result adjustment means 4 for adjusting a detection interval of the electronic watermark based on a detection result of the electronic watermark detection means 2.

Thus, as the Examiner rightfully points out in the Office Action dated December 4, 2006, Shimizu fails to disclose or suggest this detection result adjustment means 4 for adjusting a detection interval of the electronic watermark based on a detection result of the electronic watermark detection means 2. In addition, Shimizu does not disclose or suggest that the watermark is indicative of copyright information.

The Examiner cites Takahashi as disclosing a watermark containing copyright information. However, as with Shimizu, Takahashi fails to disclose or suggest a detection result adjustment means 4 for adjusting a detection interval of the electronic watermark based on a detection result of the electronic watermark detection means 2.

Turning now to the Kato reference, the Examiner alleges that Kato teaches Appellant's claimed detection result adjustment means 4 for adjusting a detection interval of the electronic watermark based on a detection result of the electronic watermark detection means 2. However, Kato teaches controlling when data is <u>written</u> into a sub-code block of a DAT media, while in contrast, Appellant's invention adjusts the intervals at which electronic watermarks, <u>previously</u>

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inserted into image signals, are detected, or read. Hence, since Kato only discloses adjusting

when data is written to a sub-code block, rather than adjusting the interval when a watermark is

detected, or read, Kato, alone or in any proper combination with Shimizu et al. and Takahashi,

fails to disclose or suggest Appellant's recited detection result adjustment means for adjusting a

detection interval of said electronic watermark based on a detection result of said electronic

watermark detection means as recited in Claim 1. Nor does Kato, alone or in any proper

combination with Shimizu et al. and Takahashi, disclose or suggest detecting said electronic

watermark, and adjusting a detection interval of said electronic watermark based on a detection

result of said electronic watermark as recited in claim 11. Furthermore, the combination fails to

disclose or suggest detection result adjustment unit which adjusts detection interval of said

electronic watermark based on a detection result of said electronic watermark detection unit as

recited in Claim 21.

Moreover, Kato is directed to a digital audio tape (DAT) recording device. A DAT

recording device utilizes well-known technologies that are not compatible with either the

Shimizu or Takahashi references.

The conventional DAT format disclosed in Kato partitions recording tracks into PCM

audio recording areas and sub-code recording areas. Specifically, the format for a DAT recording

is arranged as 8 blocks of sub-code data, followed by 128 blocks of PCM audio data, and

terminated with another 8 blocks of sub-code data. The information recorded in the sub-code by

Kato is not a watermark, as this information is not embedded in the audio signal but rather is

contained in discrete portions of the track.

Consequently, Kato is non-analogous art, with respect to both Shimizu and Takahashi.

Specifically, both Shimizu and Takahashi are directed towards embedding and detecting

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watermarks in compressed digital image signals. However, as indicated above, Kato does not deal with watermarks whatsoever, rather the problem being solved by the Kato apparatus is shortening the processing time of a controller when processing a digital audio signal transmitted to a digital audio I/O terminal. No disclosure or suggestion is provided in Kato regarding watermarking data. Thus, the combination of Shimizu, Takahashi and Kato is believed to be improper.

Furthermore, even if the combination were proper, as noted above, the combination would fail to disclose or suggest Appellant's claimed invention. Since Kato fails to disclose embedding or detecting watermarks in compressed digital data, Kato is unable to disclose or suggest a detection result adjustment means for adjusting a detection interval of the electronic watermark based on a detection result of the electronic watermark detection means, as recited in the claims. As shown above, neither Shimizu nor Takahashi disclose or suggest this feature either.
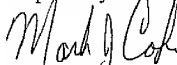
VIII. CONCLUSION

It is clear that all of the limitations of claims 1 – 30 are not taught or suggested by the references of Shimizu et al., Kato and Takahashi, individually or in combination. Accordingly, Appellant respectfully submits that the Examiner has not met the burden of establishing a prima facie case of obviousness based on the prior art, as required by 35 U.S.C. §103(a)[1]; no objective teaching in Shimizu et al., Kato and Takahashi, individually or in combination, would lead an individual of ordinary skill in the art to produce the present invention.

The above arguments establish that claims 1 – 30 on appeal are patentable over the combination of Shimizu et al., Kato and Takahashi. In view of the remarks set forth in this

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Appeal Brief, Appellant respectfully requests that the rejection under 35 U.S.C. §103(a) citing

the aforementioned references made in the Final Rejection dated April 4, 2007, and in the

Advisory Action of April 25, 2007, be reversed by the Board of Patent Appeals and Interferences.

Respectfully submitted,

Mark J. Cohen
Registration No. 32,211

SCULLY, SCOTT, MURPHY & PRESSER
400 Garden City Plaza - Ste. 300
Garden City, New York 11530
(516) 742-4343

PJE:DAT:bk

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CLAIMS APPENDIX

1. (Original) An electronic watermark detection device having an electronic watermark detection means for detecting an electronic watermark inserted into an image signal and indicative of at least copyright information, comprising: detection result adjustment means for adjusting a detection interval of said electronic watermark based on a detection result of said electronic watermark detection means.

2. (Original) The electronic watermark detection device as set forth in claim 1, wherein said electronic watermark detection means generates a detection result of said electronic watermark and a detection interruption for notifying the result, and said detection result adjustment means accumulates the detection results of said electronic watermark based on said detection result and said detection interruption from said electronic watermark detection means and adjusts said electronic watermark detection interval based on the accumulation result.

3. (Original) The electronic watermark detection device as set forth in claim 2, wherein said detection result adjustment means adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection means to output the adjusted timing as an adjusted detection interruption.

4. (Original) The electronic watermark detection device as set forth in claim 2, wherein said detection result adjustment means adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection means and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection interruption.

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5. (Original) The electronic watermark detection device as set forth in claim 1, wherein said detection result adjustment means increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected.

6. (Original) The electronic watermark detection device as set forth in claim 1, wherein said electronic watermark detection means generates a detection result of said electronic watermark and a detection interruption for notifying the result, and said detection result adjustment means accumulates the detection results of said electronic watermark based on said detection result and said detection interruption from said electronic watermark detection means and adjusts said electronic watermark detection interval based on the accumulation result, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected.

7. (Original) The electronic watermark detection device as set forth in claim 2, wherein said detection result adjustment means adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection means to output the adjusted timing as an adjusted detection interruption, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected.

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8. (Original) The electronic watermark detection device as set forth in claim 2, wherein said detection result adjustment means adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection means and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection interruption, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected.

9. (Original) The electronic watermark detection device as set forth in claim 1, wherein said image signal is a digital image including at least an image of the MEPG (Moving Picture Experts Group) standard.

10. (Original) The electronic watermark detection device as set forth in claim 1, wherein said image signal is a picture signal of at least a space region.

11. (Original) An electronic watermark detection method of an electronic watermark detection device for detecting an electronic watermark inserted into an image signal and indicative of at least copyright information, comprising the steps of: detecting said electronic watermark, and adjusting a detection interval of said electronic watermark based on a detection result of said electronic watermark.

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12. (Original) The electronic watermark detection method as set forth in claim 11, wherein at said electronic watermark detection step, a detection result of said electronic watermark and a detection interruption for notifying the result are generated, and at said detection result adjustment step, the detection results of said electronic watermark are accumulated based on said detection result and said detection interruption from said electronic watermark detection step and said electronic watermark detection interval is adjusted based on the accumulation result.

13. (Original) The electronic watermark detection method as set forth in claim 12, wherein at said detection result adjustment step, output timing of said detection interruption is adjusted based on said detection result and said detection interruption from said electronic watermark detection step to output the adjusted timing as an adjusted detection interruption.

14. (Original) The electronic watermark detection method as set forth in claim 12, wherein at said detection result adjustment step, output timing of said detection interruption is adjusted based on said detection result and said detection interruption from said electronic watermark detection step and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection interruption.

15. (Original) The electronic watermark detection method as set forth in claim 11, wherein at said detection result adjustment step, said detection interval is increased when said electronic watermark is detected and said detection interval is decreased when none of said electronic watermark is detected.

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16. (Original) The electronic watermark detection method as set forth in claim 11, wherein at said electronic watermark detection step, a detection result of said electronic watermark and a detection interruption for notifying the result are generated, and at said detection result adjustment step, the detection results of said electronic watermark are accumulated based on said detection result and said detection interruption from said electronic watermark detection step and said electronic watermark detection interval is adjusted based on the accumulation result, and said detection interval is increased when said electronic watermark is detected and said detection interval is decreased when none of said electronic watermark is detected.

17. (Original) The electronic watermark detection method as set forth in claim 12, wherein at said detection result adjustment step, output timing of said detection interruption is adjusted based on said detection result and said detection interruption from said electronic watermark detection step to output the adjusted timing as an adjusted detection interruption, and said detection interval is increased when said electronic watermark is detected and said detection interval is decreased when none of said electronic watermark is detected.

18. (Original) The electronic watermark detection method as set forth in claim 12, wherein at said detection result adjustment step, output timing of said detection interruption is adjusted based on said detection result and said detection interruption from said electronic watermark detection step and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection interruption, and said detection interval is increased when said electronic watermark is detected and said detection interval is decreased when none of said electronic watermark is detected.

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19. (Original) The electronic watermark detection method as set forth in claim 11, wherein said image signal is a digital image including at least an image of the MEPG (Moving Picture Experts Group) standard.

20. (Original) The electronic watermark detection method as set forth in claim 11, wherein said image signal is a picture signal of at least a space region.

21. (Original) An electronic watermark detection device having an electronic watermark detection unit which detects an electronic watermark inserted into an image signal and indicative of at least copyright information, comprising: detection result adjustment unit which adjusts detection interval of said electronic watermark based on a detection result of said electronic watermark detection unit.

22. (Original) The electronic watermark detection device as set forth in claim 21, wherein said electronic watermark detection unit generates a detection result of said electronic watermark and a detection interruption for notifying the result, and said detection result adjustment unit accumulates the detection results of said electronic watermark based on said detection result and said detection interruption from said electronic watermark detection unit and adjusts said electronic watermark detection interval based on the accumulation result.

23. (Original) The electronic watermark detection device as set forth in claim 22, wherein said detection result adjustment unit adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection unit to output the adjusted timing as an adjusted detection interruption.

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24. (Original) The electronic watermark detection device as set forth in claim 22, wherein said detection result adjustment unit adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection unit and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection interruption.

25. (Original) The electronic watermark detection device as set forth in claim 21, wherein said detection result adjustment unit increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected.

26. (Original) The electronic watermark detection device as set forth in claim 21, wherein said electronic watermark detection unit generates a detection result of said electronic watermark and a detection interruption for notifying the result, and said detection result adjustment unit accumulates the detection results of said electronic watermark based on said detection result and said detection interruption from said electronic watermark detection unit and adjusts said electronic watermark detection interval based on the accumulation result, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected.

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27. (Original) The electronic watermark detection device as set forth in claim 22, wherein said detection result adjustment unit adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection unit to output the adjusted timing as an adjusted detection interruption, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected.

28. (Original) The electronic watermark detection device as set forth in claim 22, wherein said detection result adjustment unit adjusts output timing of said detection interruption based on said detection result and said detection interruption from said electronic watermark detection unit and externally instructed detection interval set value and set value of the number of detections to output the adjusted timing as an adjusted detection interruption, and increases said detection interval when said electronic watermark is detected and decreases said detection interval when none of said electronic watermark is detected.

29. (Original) The electronic watermark detection device as set forth in claim 21, wherein said image signal is a digital image including at least an image of the MEPG (Moving Picture Experts Group) standard.

30. (Original) The electronic watermark detection device as set forth in claim 21, wherein said image signal is a picture signal of at least a space region.

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None

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